The Bird's Nest Drawing as a Valid Predictor of Attachment Style in Adults with a History of Intergenerational Trauma

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Albertus Magnus College

Submitted in completion of the requirements for the degree of

Master of Arts in Art Therapy and Counseling (MAATC)

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Institutional Review Board (IRB) Albertus Magnus College

DATE: 2/21/23

Re: IRB #: 20230217-KR

Dear Kayla,

This letter serves as an official conditional approval by the Albertus Magnus College IRB for you to conduct the study on "Bird Nest Drawing and Attachment Styles" as described in the IRB application submitted on 2/13/23. Before starting your study, please make the following minor change:

- Change the gender identity question choice options to "cisgender man" and "cisgender woman," instead of woman and man.

Once you make this change, please resubmit the revised demographic questionnaire. Once you begin your study, please ensure that the confidentiality of your research participants is properly protected and that you remain within the boundaries you stated in the IRB application. If those boundaries change in relation to the study participants, please notify the IRB as an amendment may be necessary.

Your study is authorized to begin as of the date of this approval letter and is valid for one year, ending on February 17th, 2024.

If you have any questions, please contact Dr. Joshua Abreu, the IRB Administrator, by e-mail at jabreu1@albertus.edu.

Sincerely,

Joshua Abreu,
Ph.D. IRB
Administrator

Acknowledgments

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Advisor:	Rebecca Arnold, Ph.D., ATR-BC Clinical Coordinator, Master of Arts in Art Therapy and Counseling Program Associate Professor Albertus Magnus College
Advisor:	Hilda Speicher, Ph.D. Adjunct Professor of Psychology Albertus Magnus College
Reader:	Ragaa Mazen, Ph.D., Curriculum Consultant Former Director of Master of Science in Human Services Albertus Magnus College

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Abstract

The present validity study investigated if the Birds Nest Drawing (BND) detects and is a quality measure in assessing insecure attachment styles in adult children with assumed unresolved trauma due to having parents/guardians with mental health complications. The hypothesis that individuals within this subpopulation will reveal a form of an insecure attachment style in their BNDs was not supported by the results of the correlational data. Participants (*N*=30) were instructed to draw a picture of a bird's nest to the best of their ability and were allowed to 15 minutes to complete the task. Participants also completed an attachment measure, Experiences in Close Relationships-Relationship Structures (ECR-RS), assessing their relationship dynamics with their mother and father. Although all participants had four or more insecure indicators on the BND and overall BND scores were low for the majority of participant, Pearson r correlations show no correspondence between ratings of the BND drawings and the scores on the self-report ECR-RS for avoidant attachment to mother and to father, and anxious attachment to father. However, results do show a negative correlation of overall BND to ECR's anxious attachment to mother, consistent with expectations. As reported anxious attachment to mother increased, the BND secure attachment decreased. This study was among the few to have a large minority sampling and t drawings within these populations appear more impoverished, perhaps suggesting bias in the lens of the BND as it has been developed largely based on Caucasians in a Western culture. Four sets of volunteers were parents and adult children and review of their drawings revealed themes of similar intergenerational experiences, including evidence of intergenerational trauma.

Keywords: intergenerational trauma, validity study, birds nest drawing, attachment styles

The Bird’s Nest Drawing as a Valid Predictor of Attachment Style in Adults with a History of Intergenerational Trauma

Clinicians have reservations about utilizing projective drawing techniques in treatment; some concerns stem from the lack of research supporting the validity and reliability of such measures, while others are reluctant to invest in the considerable amounts of training that is required to be able to administer and score those measures (Groth-Marnat & Wright, 2016). Despite these reservations, projective drawing techniques have been utilized in research and treatment with clients as the very nature of their impreciseness and unpredictability can often capture the complex states of the psyche that are well beyond verbal expression (Goldner & Scharf, 2011). For example, projective drawing techniques can, at times, visually capture relational dynamics and attachment patterns (Kaplan & Main, 1985). Attachment patterns are an essential insight into understanding how individuals primary relational experiences impact how they view themselves and others, a term Bowlby (1973, 1977) defined as an “*internal working model”*.

O’Neill et al. (2018) noted that research on intergenerational trauma suggested that trauma can disrupt healthy internal working models often patterned and reinforced through generations. According to these authors, children raised by caregivers who suffer from complex trauma often struggle with mental health issues due to interpersonal difficulties, and impairment of affect regulation, often turning to various substance and behavioral addictions as coping mechanisms (p. 180). Jensen et al. (2020) explained that when parents are affected by personal trauma, they may struggle to form meaningful relationships with their child.

Kaiser’s (1996) Bird’s Nest Drawing (BND) is a projective drawing assessment utilized in art therapy to measure attachment. The BND has been empirically tested with several populations, including pregnant mothers, those with substance abuse disorders, elementary school children, adolescents in foster care, college students, adolescents with anorexia, and adolescents with a history of parental substance abuse (Fine, 2002; Francis et al., 2003; Goldner, 2014; Harmon-Walker & Kaiser, 2015; Hyler, 2002; Kaiser, 1996; Lenssen, 2006; Overbeck, 2002; Sheller, 2007; Trewartha, 2004; Yoon et al., 2020). However, the BND has yet to be evaluated on individuals with a history of intergenerational trauma, a population that presents with a complex trauma profile and internal working model. Using BND as a valid assessment will be explored in the present study.

Attachment

Theories of attachment styles are built on the theoretical constructs of psychoanalytic and object relations theories (Ainsworth et al., 1978; Bowlby, 1969). According to Bowlby (1969), children are predisposed to come into the world seeking attachment to a primary caregiver as a need for survival. The innate response of the infant is to keep within close proximity of the maternal (or parental) figure for basic needs and care. Children will naturally orient themselves to the parental caregiver who offers them the most security, whether that be the mother, father, or anyone else who is caring for them (Bowlby, 1988). How a child is cared for plays a part in how their attachment behavior develops.

Ainsworth et al. (1978) conducted observational research on mother/infant interactions and suggested that a mother’s (or primary caregiver’s) behavior played an important role in influencing the child’s development in attachment style. An optimally sensitive mother will be alert to her baby’s needs, she can interpret it accurately, and respond promptly and appropriately. A rejecting mother will frequently feel angry and resentful toward their baby. They proposed that based on this caregiver/infant interactional style, children developed three distinct styles of attachment: *secure, insecure-avoidant, or insecure-ambivalent/resistant*.

Ainsworth (1978) conducted structured observational study on attachment styles in young children using the Strange Situation paradigm. This paradigm consists of eight stages, includes the presence and absence of a stranger, which lasts approximately three minutes. The purpose of adding a stranger was to observe how the child reacts during separation from the attachment figure (mother) and how the child responds to the mother when she returns. Ainsworth found a child with a secure attachment style would explore the room and play while the caregivers were present, the child seemed to be happily engaged with the stranger, and although the child might have been visibly upset when the caregivers left, the child was happy when the caregiver returned. Children with an insecure-avoidant style displayed very little disturbance in separation episodes, treated the stranger similarly to the mother but with less avoidance, and avoided the mother when she returned while crying minimally during separation. Children with insecure-ambivalent/resistant attachment styles displayed distress during separation episodes and displayed both a strong interest in close contact with the mother and resistance when she returned. A fourth attachment style (*disorganized*) was later added by Main and Solomon (1986) for children who were presented with disoriented, incoherent patterns of separation and reunion with a caregiver.

A caregiver’s relationship with one’s child helps develop internalized representations of the self and others, also known as a child’s *internal working model* (Bowlby, 1973; 1977). Internal working models form positive or negative expectations that guide how an individual behaves not only with the attachment figures but with others in the social world (Bowlby, 1969). Expanding on this idea, Bartholomew and Horowitz (1991) utilized Bowlby’s concept of the internal working models (self-image and image of others) and created the first study to examine four different prototypes in adults: *secure, preoccupied, dismissing, and fearful.* Their study revealed that individuals with a positive self-image feel worthy of love and support as opposed to individuals with a negative self-image. Similarly, individuals with a positive image of others view people as trustworthy and reliable, as opposed to assuming they are rejecting and unreliable (p. 227).

Early measures of attachment relied on *categorical* descriptions of relationship styles. Hazan and Shaver (1987) utilized Ainsworth’s three categorical model as a framework for assessing adults in romantic relationships. In this measure, there are three descriptions written for each attachment style. An individual must choose the description of an attachment style that closely resembles how the individual acts in romantic relationships. Bartholomew and Horowitz (1991) later proposed a four-type categorical measure of young adult attachment styles known as *secure, preoccupied, dismissing, and fearful.* Each prototypic attachment pattern is defined by a combination of an individual’s positive and negative internal working models of the self and others (p. 226).

In the late 1990s, theorists believed that attachment was more nuanced and could more accurately be described as a *dimensional or continuous* approach (Fraley et al., 2015). This approach assumed that the two main features of a person’s attachment style fall along a continuum rather than within a category. Fraley and colleagues developed a two-dimensional model on anxiety and avoidance inspired by the work of Bartholomew and Horowitz. The anxious attachment factor corresponds to the notion of having anxiety about close relationships and being hyper-aware of rejection. The avoidance factor corresponds to feeling uncomfortable and reluctant to be close to an intimate partner. A *dimensional/continuous* approach represents a person's level of anxiety along with the level of avoidance on an x-y axis that provides a specific point that the researchers concluded more richly described a person's unique attachment style from the perspectives of the two dimensions of anxiety and avoidance. Additionally, Scharfe (2017) further noted that conceptualizing attachment along two continuums (as opposed to categorical) would allow for the use of multiple-variate statistical analysis.

Attachment can also be measured as a state or trait attachment style. Life events about close relationships can temporarily affect a person's attachment style or levels of security and insecurity (Gillath et al., 2009). Trentini et al. (2015) stated that attachment styles can fluctuate across a person's lifetime due to relationship breakups and because several representations of others and the self can coexist simultaneously within an individual. Gillath et al. (2009) explained that temporary changes in attachment styles could override the disposition of a stable attachment and influence immediate behaviors, expectations, and perceptions. For example, how an individual feels about a relationship with a past lover who has hurt that individual versus a trustworthy new lover can affect that individual's perception of love currently and how the person would behave toward the new lover. How an individual feels and behaves toward one's parents can also differ towards friends or romantic partners as each dynamic is different

Gillath et al. (2009) developed The State Adult Attachment Measure (SAAM) to observe temporary variations in adult attachment by providing a multidimensional individual profile of secure, anxious, and avoidant security. The factor that separates SAAM from mainstream attachment scales is that it elicits state-related responses from the participants, asking how they feel at a given moment. Fraley et al. (2015) implied that the decision over how attachment styles should be measured is a matter of preference regarding statistical analysis, convenience, and/or theoretical orientation. However, Scharfe (2017) argued that continuous measures such as the

Relationship Scales Questionnaire (RSQ; Griffin and Bartholomew, 1994) showed moderately stable over time however the scales do not have a desired reliability (p. 2); whereas categorical measures like Bartholomew and Horowitz's (1991) Relationship Questionnaire (RQ) demonstrate some instability over time.

Intergenerational Trauma

The relationship between attachment style and trauma has been well documented (Herman, 1997; Solomon & Siegel, 2003; van der Kolk, 1989; 2005). Intergenerational trauma appears to influence deeply embedded maladaptive attachment behaviors (Fenerci & DePrince, 2017; Rakoff, 1966; Sigal & Rakoff, 1971; van der Kolk, 2005). Sigal and Rakoff (1971) introduced the concept of intergenerational trauma after noticing trends of depression, suicidality, and school-related dysfunction in children whose parents were survivors of the concentration camps during the Holocaust. Intergenerational trauma can also be the result of systemic oppression and racism, natural disasters, war, and other situational or global events that can be passed down generationally from parent to child (O'Neill et al., 2018). The transmission of trauma is unintentional and often transmitted without awareness.

Different forms of trauma can cause attachment disruptions (Fenerci & DePrince, 2017) and lead to coping adaptations that affect more than one generation. Cumulative effects of multiple traumas continue across generations, eventually spreading to culture and society. Intergenerational trauma resembles a ripple effect of victimization; the personal trauma of the victim often extends and impacts the lives of their significant others such as spouses and offspring (Jensen et al., 2021). Daily hardships and lifetime trauma are positively associated with having internalized symptoms. Internalizing symptoms are often associated with parenting behaviors of rejection that potentially could affect younger generations. Fenerci and DePrince

(2017) explained that post-trauma appraisals (shame, alienation, anger, self-blame, fear, and betrayal) and disorganized memory are significantly related to a dysfunctional mother-and-child relationship and could potentially lead to the risk of the child developing behavioral problems.

The body and brain's response to complex trauma can be devastating and long-lasting (O'Neill et al., 2018). Typically, when an individual is triggered by trauma, the Hypothalamus-Pituitary-Adrenal (HPA) axis is activated, releasing hormones that prepare this person for a fight, flight, or freeze response. Aversive childhood experiences can cause extreme variations in the duration of how long the effects of the stress response last (p. 181). A dysregulated trauma response can be evidenced by hyperarousal (states of anxiety and irritability), hypo-arousal (seen as having a flat affect), and withdrawal and dissociation symptoms. When ongoing, as with perpetual or intergenerational trauma states, these trauma responses can interfere with parent child attachment. O'Neill et al. (2018) explain the mental health concerns for children reared by parents with trauma include difficulties with emotional expression, an increased vulnerability to PTSD or Complex trauma symptoms, and problems with separation/individuation (p. 181).

Healing from intergenerational trauma is possible. Herman (1992) theorized three main stages of trauma recovery: safety and stabilization, remembrance and mourning, and reconnection with ordinary life. To establish safety, focusing on control of the body must be the first stage before moving outward toward the control of the environment. The second stage allows the survivor to reconstruct the trauma story, transform the traumatic memory, and integrate it into one's life story. The final stage is reached when the survivor can come to terms with the traumatic past and face the task of creating a future. The key point to understand is that trauma can have various lasting effects on its victims; therefore, the time it takes for an individual to work through each stage varies.

As noted by Jensen et al. (2020), parent/child engagement suffers due to intergenerational trauma; therefore, the concept behind Herman's (1992) stage of remembrance and mourning can be effective in restructuring and healing this relationship. Jensen et al. (2020) explained that when parents are too preoccupied with the complexities of their trauma, it affects their ability to be emotionally available for their children. Often the parent's trauma covertly influences the child and alters the chance of the child having a secure attachment and instead developing maladaptive ways of living. Considering Herman's (1992) recovery stage, it could be beneficial for a child born into intergenerational trauma if the parent are helped to work through their traumas before considering treatment for the child or treating both child and parent simultaneously. Iyenger et al. (2014) described a process of "reorganization" that can occur when someone with an insecure attachment style actively changes their understanding of their past and present experiences in the direction of greater resolution and balance. This suggests that it might help influence a stronger connection between parent and children the parents could work on their form of "reorganization" to help foster the development of a secure attachment. This approach can assist parents to be more emotionally available and help their children to reach the stage of remembrance and mourning when working on the trauma that has been passed down to them. Both the approaches of parent "reorganization" and the remembrance and morning stage should be considered in the possibility of strengthening the bond and healing process between parent and child.

Projective Drawing Tests

Although there has been mixed research about the validity and reliability of using projective drawing measures in clinical counseling, most researchers still like to use them as informal and hypothesis-generating tools (Oster, 2016). Goodenough (1926) was the first to use figure drawing as an assessment of intelligence in an educational school setting. Machover (1949) however, is given credit as the first to develop a figure drawing to assess personality using the Draw-A-Person Test (DAP). Machover believed that projective methods uncover the deep and unconscious determinants of the self that could not be manifested in direct communication. For children especially, projective tests can be beneficial as their unconscious and conscious thoughts, wishes, and concerns can easily be expressed in drawings before they are more skillful expressing thoughts and feelings into words (Shiakou, 2012).

Kaplan and Main (1986) first used children's projective family drawings in research as predictors of attachment style. Using a four-category model of attachment (secure, insecure-avoidant, insecure-ambivalent, or insecure-disorganized) the researchers created a manual of graphic indicators that predicted secure attachment (open-arms, implied movement) versus insecure attachment (rigid or stiff figures, barriers, etc.). Building on this work, Shiakou (2012) used Kaplan and Main's (1986) manual to code children's family drawings, making a connection between a history of abuse and graphic indicators of attachment style. Compared to drawings from non-maltreated children, abused children's art showed indicators of unfinished objects, distance placed between each family member, portrayals of a lonely child, and unpleasant exaggeration of facial features all of which, according to Kaplan and Main (1986), were predictive indicators for an insecure attachment.

Goldner and Scharf (2011) found similar results of trauma attachment indicators, examining the relationship between a children's attachment security and their social and behavioral adjustment and personality. Secure children's drawings had higher levels of vitality and pride and lower levels of isolation, pathology, bizarreness, and tension. Conversely, children in the disorganized category had high levels of bizarreness and vulnerability compared to the avoidant and secure group. Research completed by both Goldner and Scharf (2011) and Shiakou (2012) suggest that projective family drawings may be predictive of attachment style in the context of a history of abuse and/or psychosocial well-being, though more research with larger samples and across cultures would increase the generalizability of the results.

Whereas a projective family drawing assessment may be a good indicator of family dynamics and psychosocial well-being as well as a possible predictor of attachment styles, the Bird's Next Drawing (BND) is considered a less threatening projective drawing (Kaiser, 1996) to bring forth similar material. Asking a child to draw a bird's nest rather than one's family may provide more emotional distance while still relevant to the theme of a family. In the case that the child has a history of trauma or neglect, this approach can be helpful in reducing anxiety. Using a categorical model of attachment theory, Kaiser's research with the BND identified graphic indicators of secure or insecure attachment styles evident in a drawing of a bird's nest that could suggest a person's internalized model of how they relate to family members. Kaiser concluded that the nest, for example, is symbolically suggestive of dimensions of the maternal protection in its womblike and containing functional form. The tree, which supports a nest, as argued by the author, could also suggest nurturance, and could be considered another dimension of caregiving.

Concerning subjective issues with projective tests, the BND is no different. Yoon et al. (2020) explained that formal qualities such as dominant color use and the uncertainty of a smudge being a 'restart' (erasure), or artistic expression are subjective despite the training of raters. Furthermore, the inter-rater reliability for indicators such as brown as the dominant color and if the nest is in a vulnerable position is poor. Only the first four items (birds, family of birds, environment, and the use of four or more colors) on the Bird's Nest Drawing Two Category Checklist (BND-TCC) are considered suitable for measurement because of their fair/good interrater reliability. The authors state the BND also has an open-ended narrative component whereby subjects are asked to write a brief story about their drawing; however, validity research on this portion of the measure is limited, and results suggest a need for stronger psychometric principles of scale development on this portion of the measure. They conclude the BND is in need of developing a comprehensive and global approach to assessing the artwork of clients.

O’Neill et al. (2018) stated that along with concerns of mental health vulnerability due to psychological distress, other characteristics children born into intergenerational trauma can develop are enmeshed dependency, feeling distressed, difficulty maintaining close relationships, low self-esteem, and difficulty controlling anger, guilt, and frustration (p. 181). Since different attachment classifications provide blueprints for an individual’s quality of life, it is crucial to investigate factors that can alter attachments in a maladaptive way, such as intergenerational trauma. Tools that have helped uncover attachment patterns include projective drawing tests.

The present correlational study focuses primarily on Kaiser’s (1996) BND. This study aims to investigate further if the BND detects and is a quality measure in assessing insecure attachment styles, particularly in adults assumed to have intergenerational trauma due to having parents/guardians with mental health issues. This population has yet to be studied and is likely to have had a disruption in forming a healthy attachment style due to parental trauma. It was hypothesized that individuals in this population would reveal a form of an insecure attachment style in their BNDs.

Method

Participants

A sample (*n* = 30) of adults as young as 25 and as old as 73 (*M*= 36.73, *SD*= 13.85) who had been reared by a caregiver with a mental health illness were recruited for this study. This study comprised of 18 Hispanics, six Caucasians, five Black/African Americans, and one Mixed. For gender, 18 were cis-gendered females, 10 were cis-gendered males, one person identified as non-binary, and one person chose not to list the gender. Participants were recruited through fliers (Appendix A) uploaded onto social media platforms and placed around a private Catholic College as well as an outpatient clinic in Connecticut known to provide services for individuals experiencing various forms of trauma. Most participants were recruited due to snowball sampling.

Instruments

The Experiences in Close Relationships-Relationship Structures Questionnaire (ECR-RS)

Brennan et al. (1998) created the original Experience in Close Relationships questionnaire (ECR), a 36-item self-report questionnaire on romantic relationships measuring attachment security along two dimensions: Anxious Attachment and Avoidant Attachment. The anxiety factor corresponds to the notion of having anxiety about close relationships and being hyper-aware of rejection. The avoidance factor corresponds to feeling uncomfortable and reluctant to be close to an intimate partner. However, to make the item pool less extensive, Fraley et al. (2000) created a revised version with only 18 questions, known as the Experience in Close Relationships-Revised Questionnaire (ECR-R). This measure assessed attachment-related anxiety and avoidance in romantic relationships. Fraley et al. (2011) built off the ECR-R to create the Experiences in Close Relationships-Relationship Structures questionnaire (ECR-RS), which not only measures attachment-related anxiety and avoidance in romantic relationships but also close relationships with parents and friends. Assessing different relational experiences is important as research has found that individuals can consider their spouse to be affectionate, responsive, and warm yet simultaneously view their mothers as cold, rejecting, and aloof. The

ECR-RS contains nine items which assess attachment for each of the four targets (mother, father, romantic partners, and friends), a total of 36 items. For the present study, only the targets Mother and Father were employed. Each item uses a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*). Items 1-6 measure avoidance, and 7-9 measure anxiety. The first four items need to be reverse-scored. The overall score on avoidance can range from 1 to 42, and for anxiety, 1 to 21. The global Cronbach's alpha across all targets for anxiety and avoidance are .80 and .88, respectively (Fraley et al., 2011). The alpha coefficients for the four domains on the anxiety scale were: mother=.84, father=.87, romantic partners=.83, and friends=.83 and for the four targets on the avoidance scale .91, .92, .81, and .85, respectively. The anxious attachment subscale of the ECR-R correlated highly (*r*=.66) with the target romantic partner score in the ECR-RS as did avoidance on the ECR-R (*r*=.56).

The Bird's Nest Drawing Two Category Checklist

The Bird's Nest Drawing Two Category Checklist **(**BND-TCC) contains graphic indicators that categorically measure secure or insecure attachment. Raters check if the indicator is present or not in the drawing (0 = *no* and 1 = *yes)*. A score of 9 is given to represent missing information. Over time, indicators within the BND-TCC were modified and changed from the original measure (Kaiser, 1996). The most recent version includes the following graphic indicators: Birds, Family of birds, Environment, Four or more colors, Green dominant, Brown dominant, Nest tiled, Nest has no bottom, Nest in vulnerable position, Restarts, cross outs, erasures, and Bizarre, incoherent, or disorganized elements. Additional items "Presence of parent bird" and "Baby bird dominance" were created for this study. To obtain a score for "Baby bird dominance" a measurement in inches of the "Size of baby bird(s)," was averaged minus the average of the "Distance of parent bird from baby bird(s)" was calculated. If the number was positive, it received a score of 1 for dominant, if it was a negative number it received a 0 for not dominant. A 9 was given if there was no parent bird present, therefore resulting in an inability to measure the distance from the baby bird to parent bird and also resulting in a score of 9 for this section.

According to Harmon-Walker and Kaiser (2015) of the BND-TCC, the first five items on the checklist are associated with secure attachment, and the remaining six items are associated with insecure attachment. Secure attachment is represented as a 1 for yes for both the additional items Presence of a parent bird and Baby bird dominance. Similar to Kaiser's (2016) scoring system, a sum of the secure and insecure attachment items is totaled. If the total sum of secure attachment items (7) is greater than the sum of the insecure attachment items (6), it is a secure attachment. If the total sum of insecure attachment items is greater than that of the secure attachment items, it is an insecure attachment. If both total sums are close to one another, then by default, it is considered disorganized and therefore, will be an insecure attachment.

The BND has shown construct validity with existing self-reporting attachment measures (the Experiences in Close Relationships [ECR] and the Inventory of Parent and Peer Attachment) in children, adolescents, adolescents in foster care, adult mothers, adults with substance abuse disorders, and pregnant mothers (Francis et al.; 2003; Harmon-Walker & Kaiser, 2015; Hyler, 2002; Kaiser, 1996; Kaiser & Deaver, 2009; Overbeck, 2002; Trewartha, 2004). The BND accesses attachment as a general relational model and not necessarily romantic attachment.

The research on the BND composite reliability and validity is mixed. The interrater reliability scores, however, have remained consistently acceptable across versions. In the Kaiser (1996) study, kappa values greater than .7 for all but one item of the original rating scale was achieved, indicating strong rater agreement. In Francis et al.'s (2003) study, kappa values ranged from 0.66 to 1.00 for all items except one. Harmon-Walker and Kaiser (2015) assessed the convergent validity of the BND as an attachment measure by comparing the rating scales with the Inventory of Parent and Peer Attachment and ECR attachment measures. Including a family of birds was significantly associated with high scores on the “Attachment to Mother” sub-scale. The lack of drawing a bottom for the nest was significantly associated with ECR security. However, they concluded that the validity of the BND-TCC still needs to be determined by systematic research (Harmon-Walker & Kaiser, 2015).

Materials

All participants received a 9 in. x 12 in. (22.86 cm x 30.48 cm) off-white Strathmore drawing paper (80 lb.) for their artwork. A 24-count pack of Crayola® crayons, a 24-count pack of Crayola® colored pencils, a 10-count pack of thin Crayola® markers, and a drawing Ticonderoga® pencil was provided for each participant.

Procedure

Once IRB was approved, participants were recruited for this study via flyers distributed over social media platforms (Facebook, Snapchat, and Instagram), in public spaces on bulletin boards, placed around campus at a private Catholic College, and with permission from the CEO at an outpatient clinic in Connecticut known to provide services for individuals experiencing various forms of trauma where the researcher is currently interning. Sessions occurred in a reserved room at a local public library and a group room at the outpatient clinic. Each session included one to five participants seated at a distance from each other so as not to view each other’s artwork. The BND manual suggests that groups could result in contamination due to participants sharing what they are drawing. Therefore, this researcher took extra measures to refrain participants from talking to each other or sitting close. Participants first read and signed the consent (Appendix B) and art-release forms (Appendix C). After completing the forms, the researcher distributed blank paper and drawing materials. The participants were instructed to “[Please] draw a picture of a bird’s nest,” taken from the procedure manual by Francis et al. (2003). This researcher modified instructions to add, “Please draw to the best of your ability. Your level of artistic ability will not be tested” to decrease performance anxiety. Participants were informed they had up to 15 minutes to complete their drawing consistent with prior research (Harmon-Walker & Kaiser, 2015). After completing their drawing, each participant completed the ECR-RS measure and demographic questionnaire (Appendix D).

Data was collected from all participants and preserved in a coded envelope to afford confidentiality and stored in a locked drawer when not being reviewed by the researcher and raters. Raters only viewed drawings. Consent forms were collected and placed in another separate envelope to increase confidentiality.

When each participant completed the directive, they returned all forms and artwork to their coded envelope. The researcher then gave them a debriefing form (Appendix E) to explain the concepts of the study and available resources to learn more about them, and resources for professionals should unwanted feelings have been stirred up after the study. Participants from the outpatient clinic in Connecticut had a separate debriefing form, including the person to reach as their resource contact (Appendix F). Participants were informed that when the study is completed, they would have the option of having their original artwork returned to them. The entire study lasted up to 30 minutes. If they consented to have their artwork photographed, the photos were uploaded on a secured USB drive and stored in a locked drawer. After all data were collected, three independent raters previously trained scored each drawing utilizing the modified version of the BND-TCC. The raters were two art therapy students in their last semester of a master’s program and one art therapy alum. Training consisted of the raters working with the BND manual and modified scoring system on 25 sample drawings until all raters had a high-scoring agreement of at least 84% on the sample drawings.

Results

When asked about the parents’ mental health, eight reported their father had a mental health concern, nine reported their mother had a mental health concern, and 13 reported both parents. Scores on the ECR-RS attachment measures can range from 9 to 63. Results show anxious attachment is low for both mother and father, avoidant attachment is higher for each (Table 1).

Rater reliability for most BND indicators was high, with mean kappa values across raters ranging from -.60 to 1.00. Two indicators, The nest is tilted (mean *k* = .39) and Nest in vulnerable position (mean k = .51), had lower agreement. Additionally, Rater 1 had little to no agreement with Raters 2 and 3 for both Nest is tilted and Baby bird dominance therefore, this rater was removed when calculating the average score for those indicators. All rater reliability scores of the BND indicators are presented in Table 2.

Even when there was agreement on the baby bird(s) being present, there was a struggle in agreeing on the correct size(s). Often Rater 1 did not agree with Raters 2 and 3 when calculating the size of the baby bird(s) when present. Because measure in inches is a continuous variable, for Baby bird size and Family of birds, Pearson r correlations were calculated to determine agreement among raters and are shown in Table 3.

To calculate an overall BND score, the sum of the insecure indicators (Brown is the dominant color, The nest is tilted, The nest has no bottom, The nest is in a vulnerable position, There are restarts, cross outs, or erasures, and There are bizarre, incoherent, or disorganized elements) was subtracted from the sum of the secure indicators (Birds, Family of birds, Presence of parent bird, Environment, Four or more colors, Green is the dominant color, and Baby bird dominance) and higher positive scores represent greater attachment security while higher negative scores indicate greater attachment insecurity. Scores can range from -6.00 to 7.00. BND overall scores for the sample range from -3.00 to 5.00 (*M* = 0.03, *SD* = 2.35). All participants had four or more insecure indicators on the BND overall score. The distribution of BND overall scores is indicated in Table 4. As expected, a large portion (60%) have scores suggesting insecurity (scoring 2.67 or lower). Thus, the BND appears to be picking up on insecurity in this population.

Concerning the hypothesis, one-tailed Pearson r correlations show there is no correspondence between ratings of the BND drawings and self-report ECR-RS scores for avoidant attachment to mother (*r*=-.114, *p*= .274), avoidant attachment to father (*r*=-.030, *p*=.437), and anxious attachment to father (*r*=-.131, *p*=.245). There is a significant negative correlation for BND with anxious attachment to mother (*r*=-.36, *p*=.024), consistent with expectations. This shows that as ECR’s anxious attachment to mother increases, the BND secure attachment decreases. For the ECR-RS targets, results show a correspondence in anxious attachment between the mother and father (*r*=.380, *p*=.019) and avoidant attachment between the mother and father (*r*= -.245, *p*=.088). Additionally, respondents reporting an anxious attachment style to a parent are more likely to report an avoidant attachment style with the same parent, avoidant and anxious attachment with mother (*r*=.495, *p*=.003) and avoidant and anxious attachment with father (*r*=.569, *p*=<.001).

Discussion

The current study examined if the BND detects and is a quality measure in assessing insecure attachment styles in adult children of parents/guardians with mental health complications who are assumed also to have unresolved trauma. The hypothesis that individuals in this population will reveal a form of an insecure attachment style in their BNDs was partially supported by the results of the correlational data, scores on the BND itself show the sample is largely insecure, but the correlation of BND scores with ECR-RS is limited with only a significant correlation showing for anxious attachment to mother. This finding is consistent with Kaiser's (1996) reports that past research using the Inventory of Parent and Peer Attachment (IPPA) measure found a weaker correlation with attachment to father and resulted in her focusing primarily on the attachment to mother subscale instead. She suggested that this finding could validate Bretherton's (1985) belief that a person's internalized representation of attachment is based on the experience they have with one primary caregiver (Kaiser, 1996, p. 335). The BND literature also suggests that the symbolism of a strong supportive tree in an environment embodies the characteristics of the mother figure.

An informal review of the artwork renders several patterns. Consistent with the directive, all 30 BND drawings depicted a nest. Ten drawings depicted the presence of a family of birds, six depicted the presence of a single bird, and one drew a single bird with eggs in the nest. Seven drawings included a nest with eggs, five included an empty nest with no environment, and one included an empty nest with an environment. Consistent with prior research on drawings with low BND overall scores (Goldner, 2014; Harmon-Walker & Kaiser, 2015; Kaiser, 1996; Kaiser & Deaver 2009), it is evident that all participants with an empty bird's nest also had a negative BND overall score in this study. Additionally, the top 33.3% drawings had an overall BND score of 2 or higher and displayed similar secure indicators. All seven drawings in this category used secure indicators of Four or more colors and had an Environment included. Five included the secure indicator of a Family of birds, and two included the secure indicator of Birds included by depicting a single bird. Only four of the drawings included the new secure indicators of the Parent bird present and Baby bird dominance. The inclusion of most if not all these secure indicators is similar to a high overall BND score found in previous studies suggesting a secure attachment style (Goldner, 2014; Harmon-Walker & Kaiser, 2015; Kaiser, 1996; Kaiser & Deaver 2009). Examples of drawings including elements of secure indicators are depicted in Figures 1 and 2. Figure 1 has a high overall BND score of 4 and a low score of 4 on the anxious attachment to mother ECR-RS subscale. The present secure indicators in this drawing are a Family of birds, Four or more colors, and an Environment included. Figure 2 has a total overall BND score of 3.01 and a score of 3 on the anxious to mother ECR-RS subscale. The secure indicators in this drawing are Birds, Four or more colors, and Environment included. Neither participant included insecure attachment indicators in their drawings.

For the bottom 33.3%, scores were from -1.5 and lower. Consistent with prior research, drawings in this category show imagery aligned with insecurity, such as not including birds or an environment, and using less than four colors (Goldner, 2014; Harmon-Walker & Kaiser, 2015; Kaiser, 1996; Kaiser & Deaver 2009).

Aside from the research on Israeli schoolchildren (Goldner, 2014), studies using the BND have yet to report an extensive and diverse sample of participants. However, the present study successfully recruited a diverse group of participants, including 60% of Hispanic individuals (which was the largest grouping). Because of this, it was important to examine cultural differences among the drawings. The drawings were separated into three race/ethnicity groups identified on the demographic form and included: Hispanics (*n* =18), Black/African American (*n*

=5), and Caucasian (*n =6*). Mixed (*n* =1) is not included due to the unreliability of basing evaluations on just one person.

The original five secure indicators of the BND were reviewed and showed 27% (*n* = 5) of the drawings in the Hispanic group included an environment in their drawing compared to 20% (*n* = 1) of the Black/African American group, and 83% (*n* =5) of the Caucasian group. Furthermore, 44% (*n* = 8) of Hispanics included bird(s) in their drawing compared to 60% (*n* = 3) of Black/African Americans and 100% (*n* =6) of Caucasians. In depicting a bird family, only 22% (*n* = 4) of Hispanics, 20% (*n* = 1) of Black African Americans, and 66% (*n* =4) of Caucasians included multiple birds. Finally, 66% (*n* =4*)* of participants in the Caucasian group of this study had a higher overall BND score compared to 16% (*n* =3) Hispanic and 40% (*n*= 2) Black/African American groups.

The fourth secure BND identifier reviewed between race/cultural groupings was the presence of Four or more colors. Insecurity was denoted by a lack of color, specifically drawings that show less than four colors. Of the cultural groups, 55% (*n* = 10) of Hispanics showed less than four colors present, with some only drawn in pencil or one color. Imagery in these drawings also appeared impoverished or limited in using paper space, symbolism, and/or creativity. An example of this can be viewed in Figure 3.

The fifth secure BND identifier is Green is the dominant color, while insecurity has been shown to be associated with the individual predominantly using brown. Of the Hispanics, 22% (*n* = 8) had an equal distribution of green and brown, and 61% (*n* = 11) used brown as dominant. In the Black/African American group, 20% (*n* =1) used green as their dominant color, and 80% (*n* = 4) predominantly used brown. In the Caucasian group, 33% (*n* = 2) used an equal distribution of green and brown, and 66% (*n* = 4) used predominantly brown. Interestingly, only one individual in the Black/African American group predominantly used green, and all the other groups used brown or an equal ratio of both colors. Thus, all groups tended toward insecurity in using green vs. brown. The mixed results presented in this study could suggest that the predominant color use of green or brown carries less significant weight in cultural differences.

Because the BND was developed in a Western culture largely using Caucasians, maybe it is biased in determining what is secure vs. insecure. Members of minority groups might be slightly disadvantaged in appearing more insecure than participants from a Caucasian background. However, differences by race/ethnicity are also shown in the self-report measure. The anxious attachment to mother scores on the ECR-RS are relatively lower in the Caucasian group, with scores ranging from as low as 3 to as high as 5. The Hispanic group ranged from ECR-RS scores as low as 3 and as high as 18, this group had the highest number of scores in double digits (*n*= 8). Only one person from the Black/African American group had a double-digit number, and ECR-RS scores ranged from as low as 3 and as high as 12. Does this suggest bias in the self-reports as well, or are people of color, in fact, experiencing greater insecurity due to the higher level of adverse experiences and disadvantages minorities face in our culture? Future research should explore these differences further to understand the origin better and provide better mental health resources to those who may struggle more due to the many disadvantages they face in relation to their cultural background.

A review of drawings was also conducted according to family pairs as several participants joined the study with a family member. Among the Hispanic volunteers, there were two sets of father and son and mother and daughter and one set of volunteers who are mother and daughter in the Black/African American. The drawings of the four parent and child pairs of volunteers show similar aspects within the drawings that display intergenerational experiences.

For example, Figures 4 and 5 are drawings by a father and a son, including a nest. However, only the father depicts a family of birds, and the son depicts a single egg in the nest. Both individuals used a pencil as the main medium, although the son added four or more colors. The father does not include an environment, yet the son provides an entire tree rooted in the grass. The pair also utilized different page orientations. Both drawings use little space on the page. However, the son utilized more space than his father. Based on the answers to the demographic set of questions, both participants reported having a mother with a mental health concern. The father had an ECR-RS anxious to mother score of 15 and the son scored 18. The father had a total overall BND score of 0.33 and the son scored -1.00, both appearing in the lower 33.3%. This can infer they have a shared experience in understanding what it is like to have a maternal parent struggling with a mental health concern. As Kaiser (1996) explained, a tree supports a nest, can be a symbol of nurturance, and is considered another dimension of caregiving. The lack of a tree in the father’s drawing and the presence of a tree in the son’s drawing could suggest they received different types of nurturance and support from their maternal parents.

The drawings in Figures 6 and 7 are also by a father and a son in the Hispanic group. Interestingly, both individuals drew trees at the same close-up angle, used the same page orientation, used the whole page, and included four or more colors. The main differences between the two drawings are that the son added leaves to the tree, including a bird, and portrayed a blue-colored backdrop (assumed to be a sky). This individual also created a thicker tree that may represent a more vital support system than the father’s drawing. The father reported having both parents with a mental health concern on his demographic questionnaire, whereas the son reported only their father having a mental health concern on his demographic questionnaire. The father had an ECR-RS anxious to mother score of 4, and the son scored 12. The father had a total overall BND score of -1.66 and the son scored 2. Upon observing these images, although both trees are drawn from the same viewpoint, the differences in the thickness, and how each nest is depicted could imply they both had similar experiences yet different outlooks on those experiences as the father scored in the lower 33.3% and the son scored in the top 33.3% for the BND.

Figures 8 and 9 are examples of drawings by a mother and a daughter in the Black/African American group. Both drawings included a nest with eggs and used four or more colors. Although the daughter included an environment, the mother did not. Both utilized the same page orientation; however, the mother occupied more page space than the daughter. Based on the BND manual, a “V” shaped bird is not considered a representation of a bird; therefore, the mother is the only one who included a bird in the drawing. The daughter’s drawing also appears more scenic when compared to the mother’s due to the inclusion of flowers, butterflies, two hearts, and apples in the tree. The daughter indicated that both parents had mental health concerns on her demographic questionnaire. The mother identified only her mother as having a mental health concern on her demographic questionnaire. Although the daughter also reported her father having a mental health concern, both participants shared an equal experience of their mother having one. Interestingly, although the daughter’s drawing appears livelier, she reported having the highest anxious to attachment score in the Black/African American group (12) and her mother reported the second highest score of an 8. The daughter had a total overall BND score of 1.33 and belonged in the middle 33.6%. Her mother scored a total of -0.67 and appeared in the bottom 33.3%.

Literature on intergenerational trauma explains the pervasiveness of how trauma appears in cyclical form and is passed through generations (Jensen et al., 2021). Of all four parent-child pairings, the drawings by a mother and a daughter (Figures 10 and 11) in the Hispanic group seem the most significantly related to the hypothesis in their graphic display of intergenerational trauma. In particular, the two drawings include empty nests and no indication of a tree. This may suggest a lack of nurturance within the parent/child relationships. Interestingly, the daughter and mother used the same page orientation and quick rapid line strokes in their drawings. However, the noticeable difference is that the daughter drew a larger nest occupying more space on the page than her mother, which can suggest that they share similar experiences with different perspectives. Both participants reported that their parents struggled with mental health concerns on their demographic questionnaires. The mother scored 7 on the ECR-RS anxious to mother subscale and the daughter scored 10. The mother had a total overall BND score of -3.00 and the daughter scored -2.50, both appearing in the lower 33.3%. Each scored relatively similar in having a highly anxious attachment to mother and close scores on their total BND overall score. This is significant because if a parent cannot work through their unresolved trauma, they could repeat the same cycle and unintentionally force their offspring to experience or witness the same trauma, as may be the case for this mother and daughter.

It should be noted that no pairs of family members participated in the study for the Caucasian group, this in itself may be informative. Unfortunately, it does not provide an opportunity to review a drawing from a family perspective. The drawings highlight the importance of working with individuals in a modality that prioritizes family dynamics. The imagery found particularly in the parent and child artwork reveals suggestive evidence that children often share lived intergenerational experiences with their parents. In some cases, the child showed slightly more evidence of support by including a tree in their artwork during times that their parent did not. In other cases, the child omitted a tree displaying relatively no support, as did their parent displaying shared experiences of growing up with parents having a mental health concern. The use of art therapy as an approach when dealing with trauma cases can be a safer and less threatening approach to uncovering material. This projective test in family counseling could help the clinician better understand the gaps or similarities a family might struggle with. For example, if both parent and child omit a tree in their drawing, it might suggest that the clinician take a closer look at how they feel supported or unsupported in their lives. It could suggest that since a parent was unaware of what needs they did not feel were met during childhood, they might not know how to fulfill that need for their child or be aware if their child is experiencing the same repeated cycle. This study could also highlight that getting to know a family’s cultural background and dynamic is important.

Although this study successfully recruited participants with an insecure attachment style as evidenced in the drawings, scores on the self-report are not moderate or high in insecure attachment. It should also be noted that two of the three raters were in the last semester of their master’s program. This inexperience resulted in extensive time dedicated to training to reach an agreement of at least 84%. It is highly encouraged to seek licensed art therapy raters to decrease the length of training time and increase the level of expertise needed of raters. The addition of the two new indicators, the Presence of parent bird and Baby bird dominance, did not have any significant findings. It is uncertain if a lone bird could be a parent or baby bird; it is especially unknown if a bird occupying the entirety of a nest could be considered resting on top of their baby eggs. Due to the subjective nature of this indicator, most raters opted not to score the indicator, using the code for missing information instead. If the parent bird was considered missing, it automatically meant there would be missing information when calculating Baby bird dominance, as there is no way to measure the distance between the parent and baby bird.

Measuring the size of the baby bird(s) in inches was perceived as challenging as some baby bird(s) can be smaller than half an inch resulting in the need of a measuring tool working with smaller units than 1/8th of an inch as found on standard rulers. Using centimeters as a measurement instead should be used in future research.

Another limitation is that although participants reported having at least one or both parents struggling with a mental health concern, it was not certain what mental health concern they struggled with or if they were even diagnosed conditions. It is also uncertain if their mental health concern is directly related to experiences of trauma, whether individual or collective. Future research should develop criteria and procedures to determine these aspects more effectively.

Overall, when compared to the drawings of the other ethnic groups in this study, most of the drawings from the Hispanic participants appear to be impoverished through the lens of the BND scoring manual as they often lacked an environment that appeared strong and nurturing, had less than four colors present or only used a pencil, sometimes they omitted a bird, and rarely included a family of birds. Most Hispanic participants also appeared to have taken the directive more literally. To date, research using the BND has predominantly included Caucasian participants leaving a significant portion of the population out. Exploring cultural constructs of attachment using the BND is suggested. However, research on attachment theory has been grounded in white/Caucasian Western culture, limiting the use of the BND as an effective tool for measuring attachment in bi-racial communities.

This study included not only parent/child drawings but also a set of drawings from a brother and sister pairing. Future research investigating parent and child drawings, or sibling comparison drawings may provide a richer examination of intergenerational trauma.

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Table 1

Descriptive Statistics for Attachment Measure

Attachment Style	Min	Max	*M*	*SD*
Anxious Attachment (Mom)	3	18	7.36	4.88
Avoidant Attachment (Mom)	6	40	16.23	7.5
Anxious Attachment (Dad)	3	21	9.87	6.12
Avoidant Attachment (Dad)	10	42	25.83	8.96

Note. Scores can range from 9.00 to 63.00.

Table 2

Rater Reliability for BND measure

Indicator	Average *k*	Raters 1 & 2		Raters 1 & 3		Raters 2 & 3	
		k	*p*	*k*	*p*	*k*	*P*
Family of birds	1.00	1.00	< .001	1.00	< .001	1.00	< .001
Parent bird	0.86	1.00	< .001	0.80	< .001	0.78	< .001
Environment included	0.82	0.73	< .001	0.93	< .001	0.80	< .001
Four or more colors	1.00	1.00	< .001	1.00	< .001	1.00	< .001
Green dominant	0.63	0.63	< .001	0.74	< .001	0.39	< .001
Brown dominant	0.60	0.68	< .001	0.74	< .001	0.39	.028
Nest is tilted [a]	0.39	0.23	.1	0.14	< .001	0.8	< .001
Nest has no bottom	0.86	1.00	< .001	0.79	< .001	0.79	< .001
Nest in vulnerable position	0.51	0.66	< .001	0.27	.109	0.59	.001
Restarts, crossouts, erasures	1.00	1.00	< .001	1.00	< .001	1.00	< .001
Bizarre, incoherent, or disorganized	0.75	0.63	< .001	0.63	< .001	1.00	< .001
Baby bird dominance [a, b]	0.83	-.286	.439	0.36	.212	0.83	< .001

Note. [a] = Rater 1 was removed when calculating the average score across raters due to low agreement.

[b] = *k* not calculated due to Rater 3's lack of variability.

Table 3

Agreement Calculating "Baby bird dominance"

Baby bird dominance	Average *r*	Raters 1 & 2		Raters 1 & 3		Raters 2 & 3	
		r	*p*	*r*	*p*	*r*	*p*
Size of baby bird(s)	.68	.74,	.019	.55	.077	.76	.023
Family of birds	.91	.92	.005	.97	<.001	.85	.015

Table 4

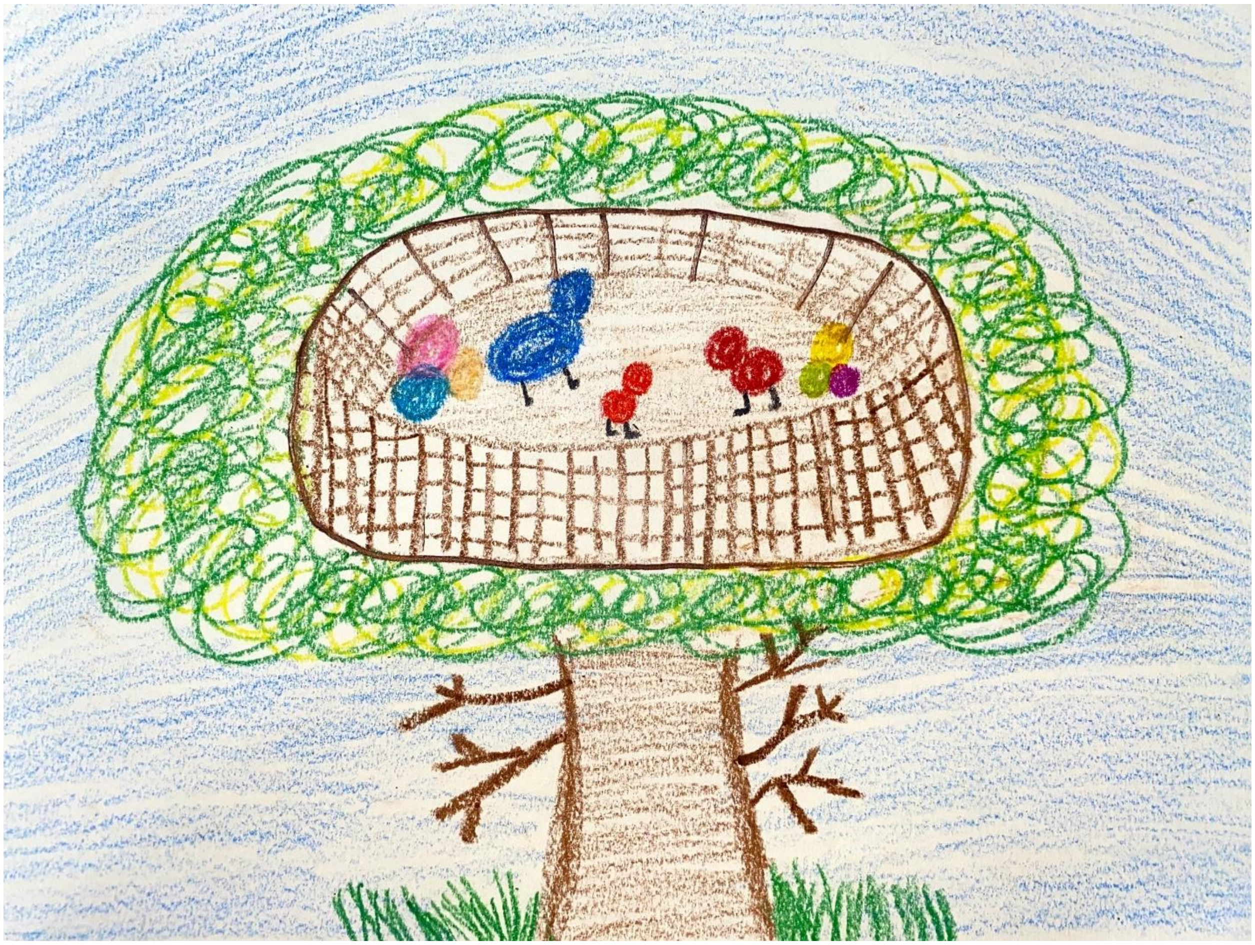
BND Overall Scores

BND Score	*f*	Cumulative %
-3.00	4	13.3
-2.50	1	16.7
-2.16	1	20.0
-2.00	2	26.7
-1.66	1	30.0
-1.50	1	33.3
-1.00	3	43.3
-0.67	2	50.0
-0.50	1	53.3
-0.34	1	56.7
0.33	1	60.0
0.67	1	63.3
1.00	1	66.7
1.17	1	70.0
1.33	2	76.7
2.00	1	80.0
2.67	1	83.3
3.01	1	86.7
3.34	1	90.0
4.00	1	93.3
4.17	1	96.7
5.00	1	100.0

Note. Scores can range from -3.00 to 5.00.

Figure 1

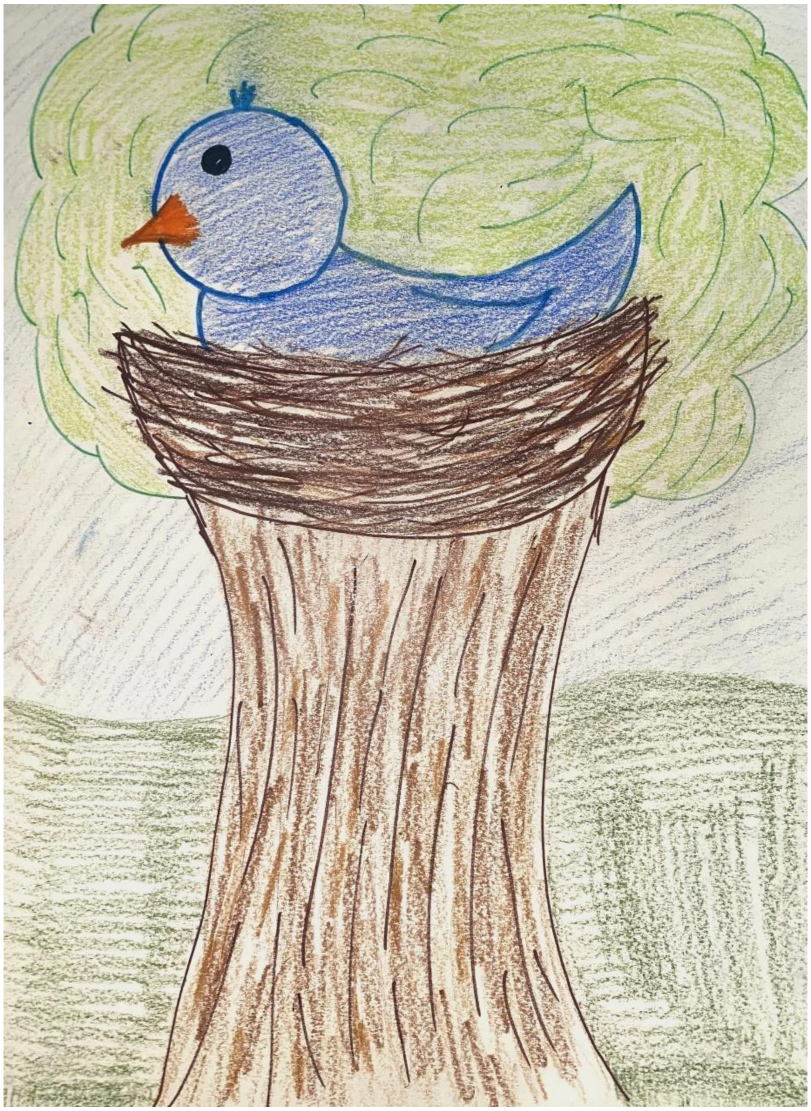
Secure BND Sample Drawing #1



Note. A BND drawn by a 28-year-old Caucasian cisgender woman whose overall BND score is in the top 33.3%. This participant had a total overall BND score of 4 and a score of 4 on the anxious to mother ECR-RS subscale.

Figure 2

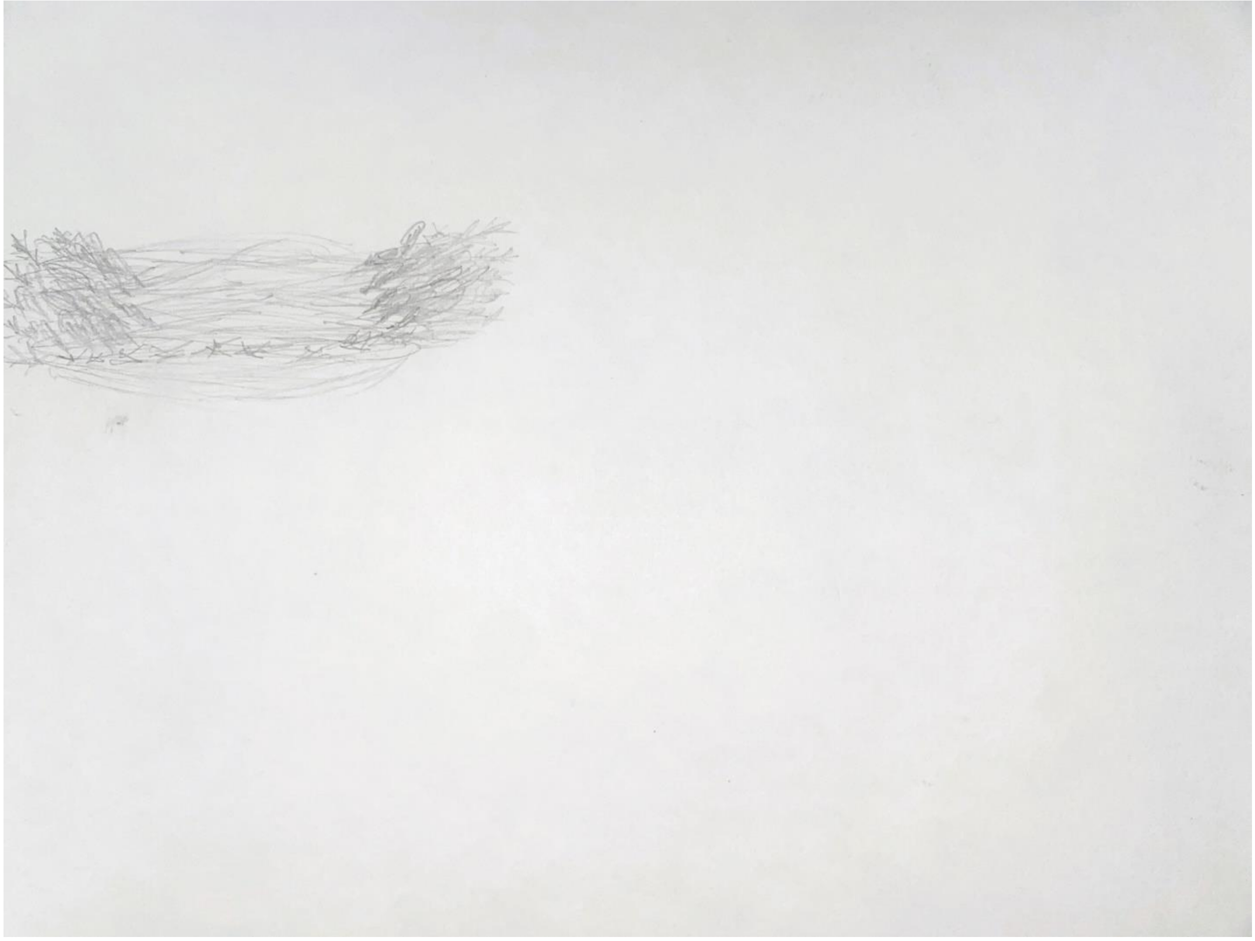
Secure BND Sample Drawing #2



Note. A BND drawn by a 30-year-old Caucasian cisgender woman whose overall BND score is in the top 33.3%. This participant had a total overall BND score of 3.01 and a score of 3 on the anxious to mother ECR-RS subscale.

Figure 3

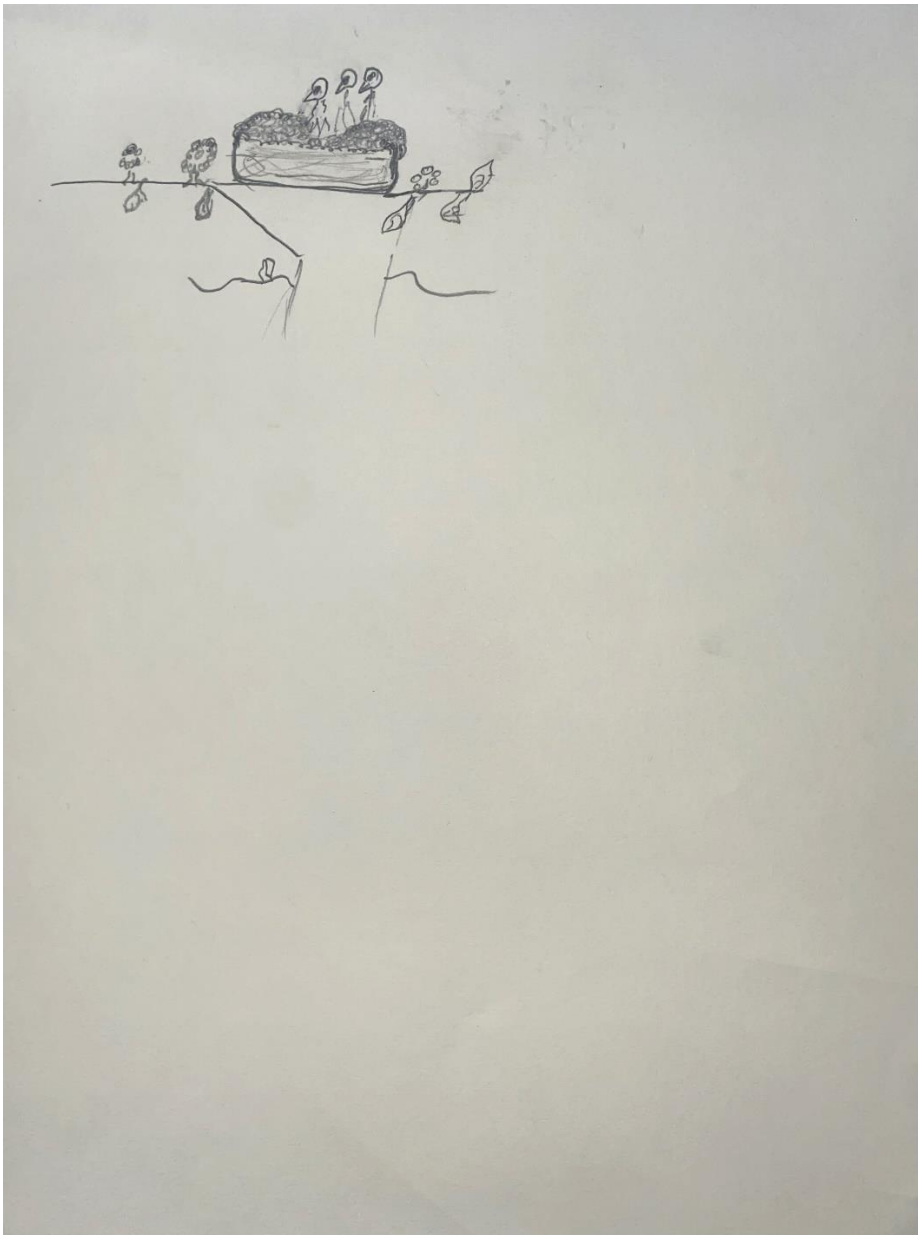
Insecure BND Sample Drawing



Note. A BND drawing falling in the insecure attachment category by a 27-year-old Hispanic cisgender male. This participant had a total overall BND score of -1.5 and a score of 15 on the attachment to mother ECR-RS subscale.

Figure 4

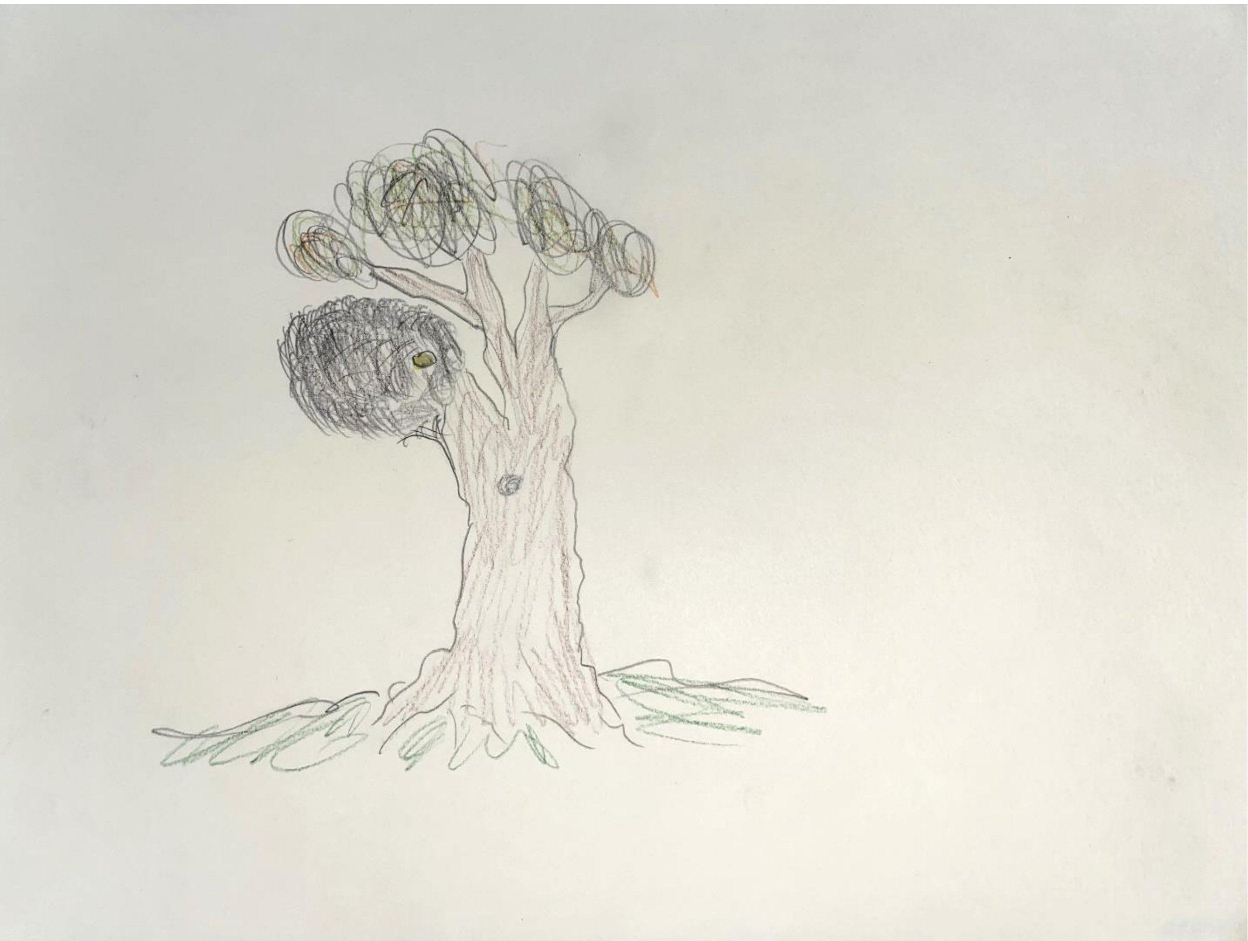
Sample Drawing #1 of Father-and-Son



Note. A BND drawing by a 70-year-old father who is Hispanic and a cisgender man. This participant had a total overall BND score of 0.33 and a score of 15 on the anxious to mother ECR-RS subscale.

Figure 4

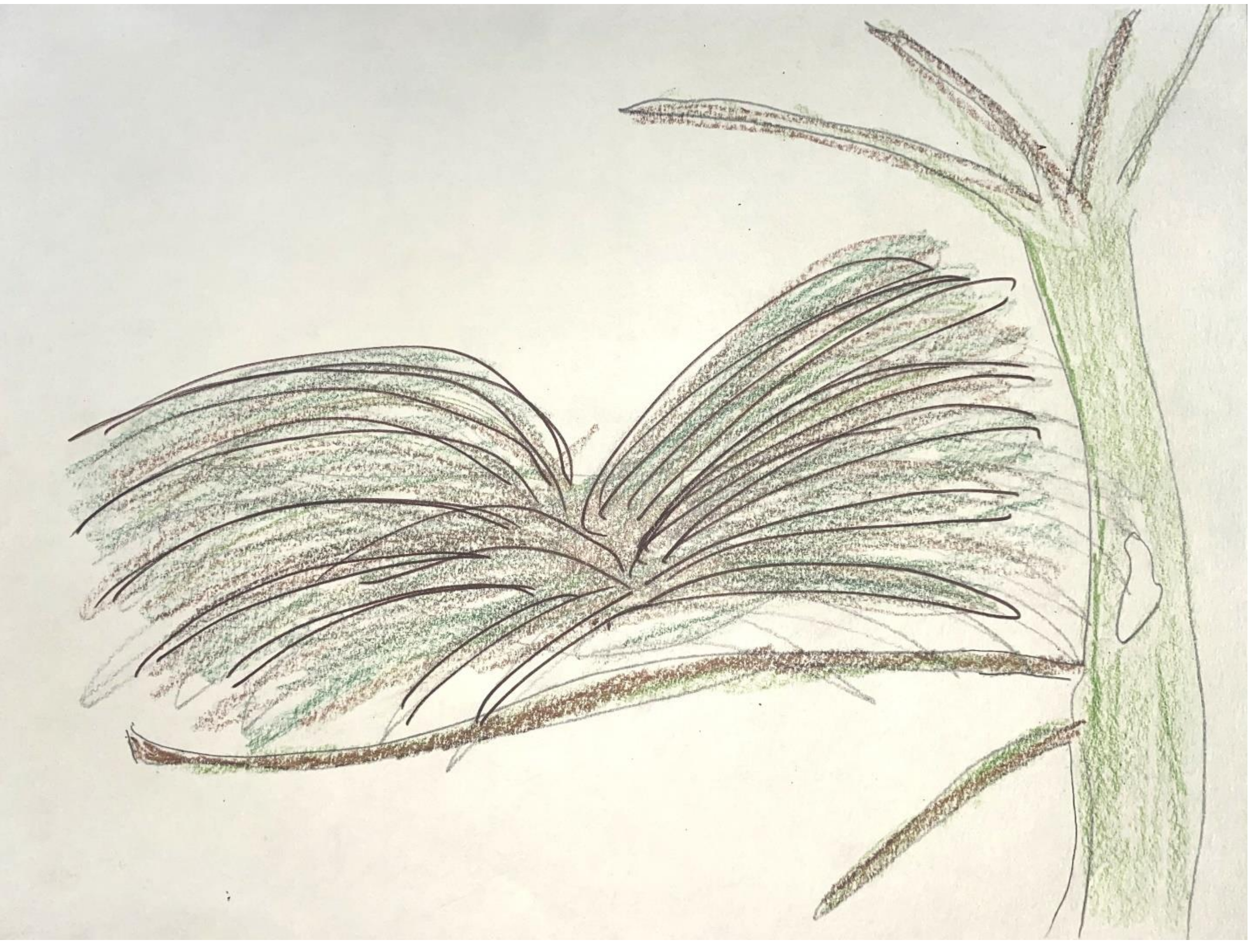
Sample Drawing #1 of Father-and-Son Pairing



Note. A BND drawing by a son who is 44 years old and a Hispanic cisgender man. This participant had a total overall BND score of -1 and a score of 18 on the anxious to mother ECR-RS subscale.

Figure 5

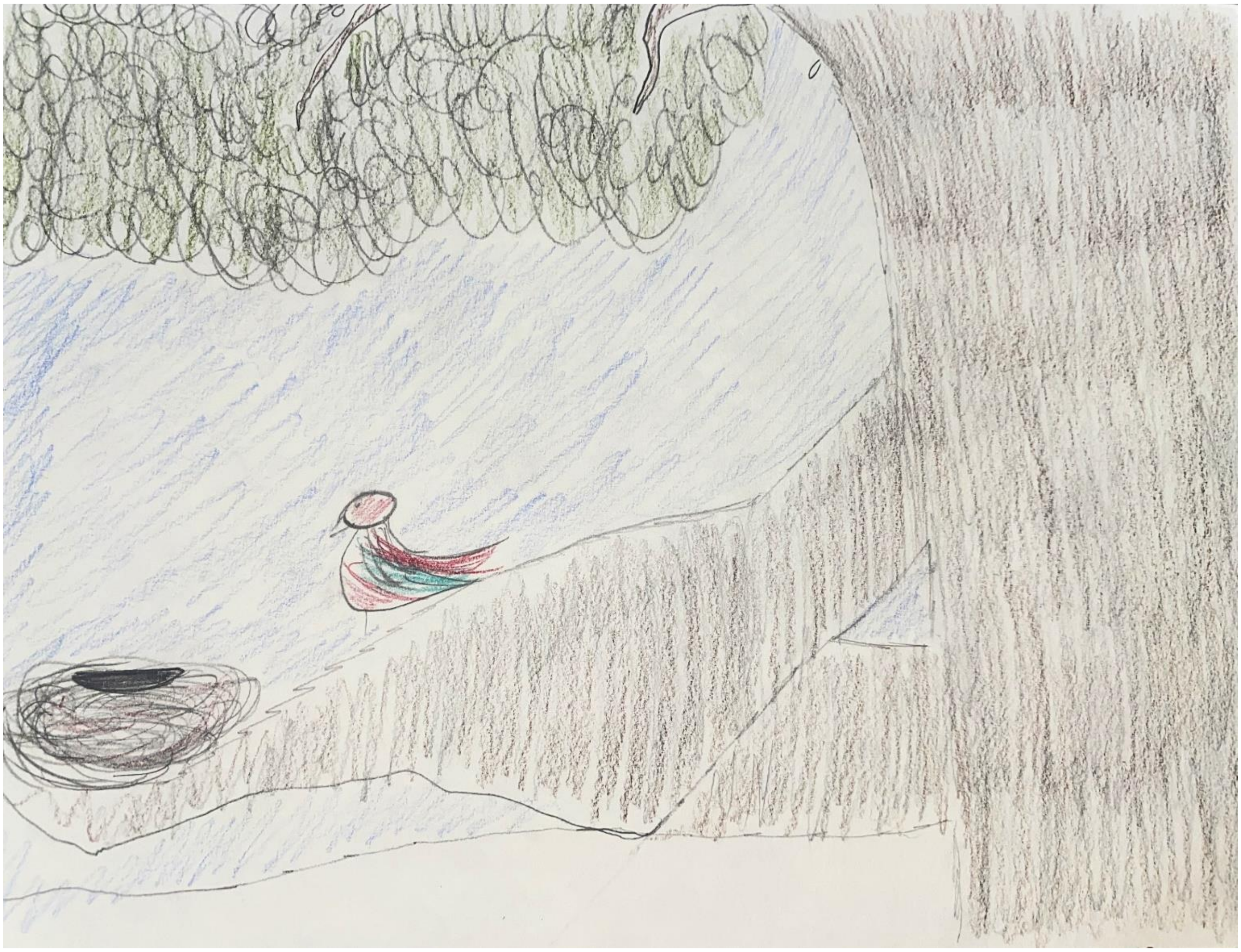
Sample Drawing #2 of Father-and-Son Pairing



Note. A BND drawing by a 51-year-old father who is Hispanic and a cisgender man. This participant had a total overall BND score of -1.66 and a score of 4 on the anxious to mother ECR-RS subscale.

Figure 6

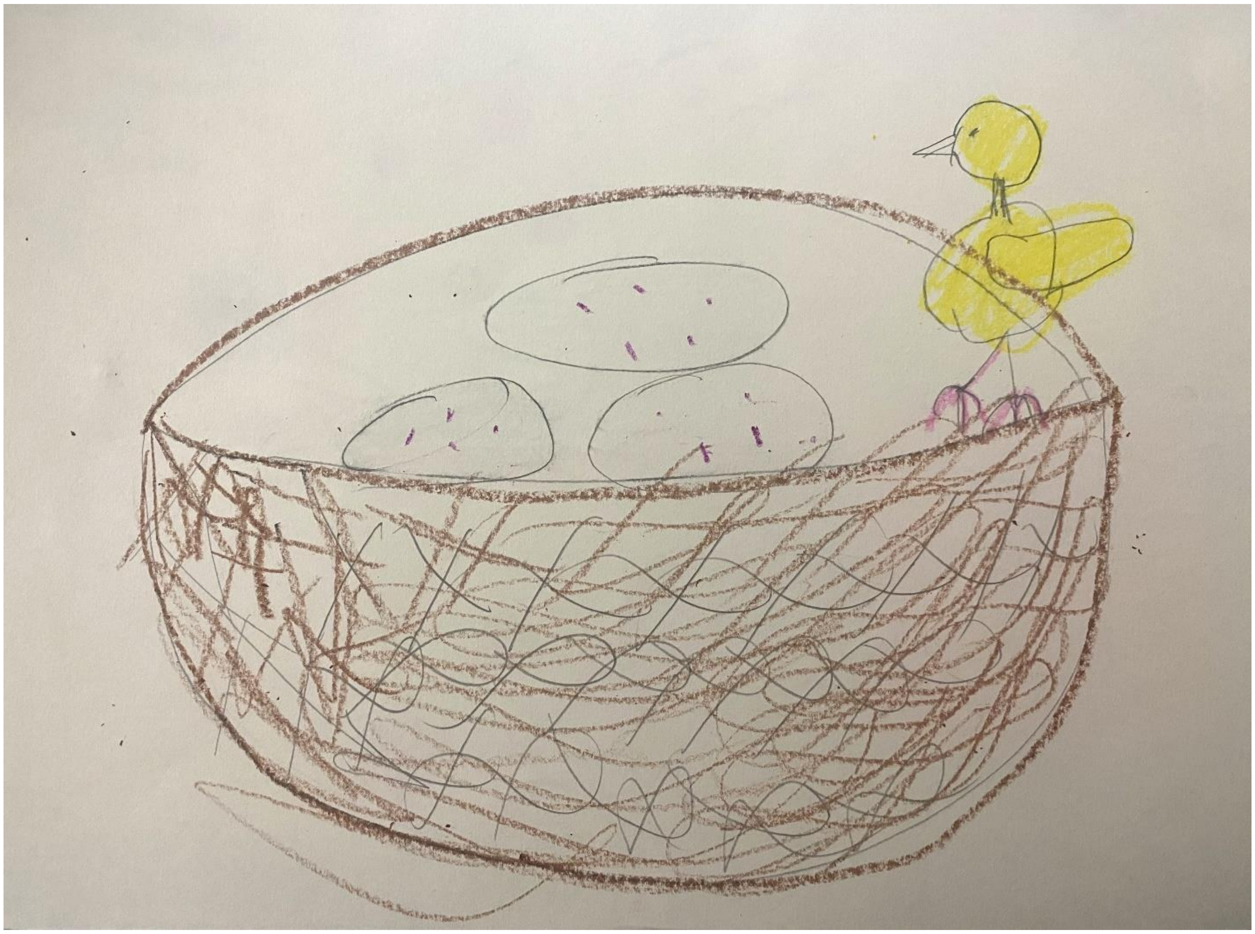
Sample Drawing #2 of Father-and-Son Pairing



Note. A BND drawing by a son who is 32 years old and a Hispanic cisgender man. This participant had a total overall BND score of 2 and a score of 12 on the anxious to mother ECR-RS subscale.

Figure 7

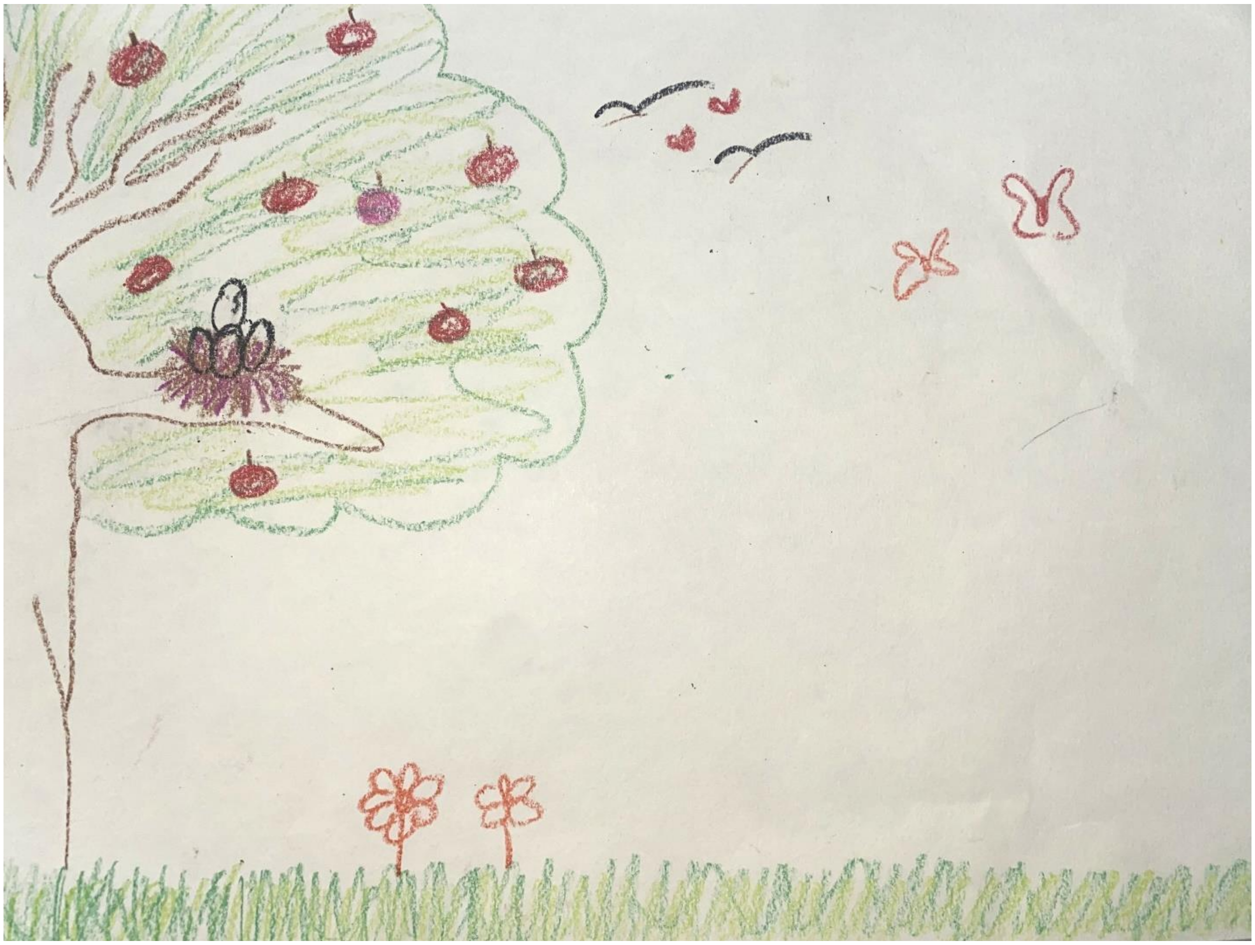
Sample Drawing #1 of Mother-and-Daughter Pairing



Note. A BND drawing by a mother who is 61 years old and a Black/African American cisgender woman. This participant had a total overall BND score of -0.67 and a score of 8 on the anxious to mother ECR-RS subscale.

Figure 8

Sample Drawing #1 of Mother-and-Daughter Pairing



Note. A BND drawing by a daughter who is 25 years old and a Black/African American cisgender woman. This participant had a total overall BND score of 1.33 and a score of 12 on the anxious to mother ECR-RS subscale.

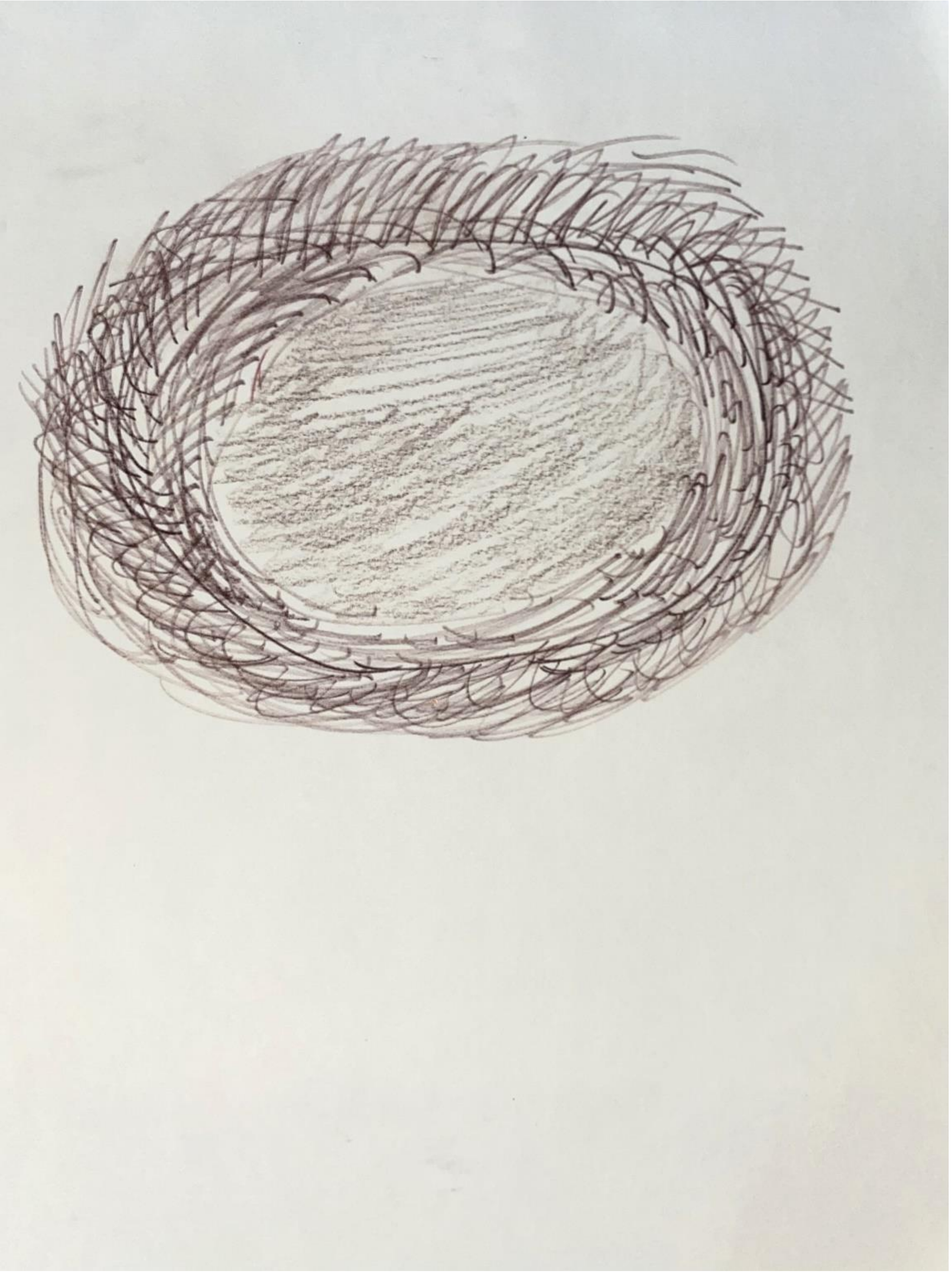
Figure 9

Sample Drawing #2 of Mother-and-Daughter Pairing

Note. A BND drawing by a mother who is 73 years old and a Hispanic cisgender woman. This participant had a total overall BND score of -3 and a score of 7 on the anxious to mother ECR-RS subscale.

Figure 10

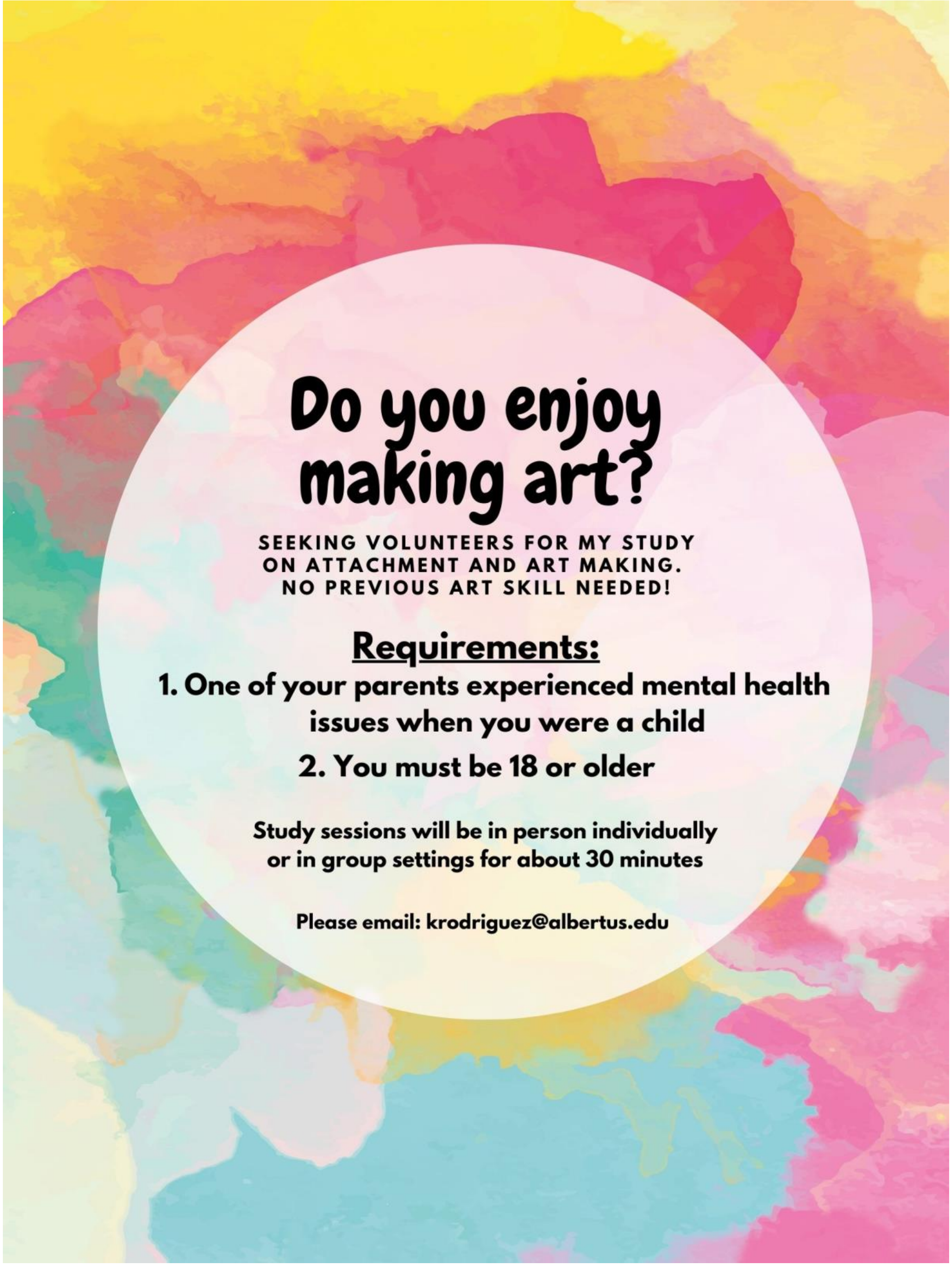
Sample Drawing #2 of Mother-and-Daughter Pairing



Note. A BND drawing by a daughter who is 50 years old and a Hispanic cisgender woman. This participant had a total overall BND score of -2.5 and a score of 10 on the anxious to mother ECR-RS subscale.

Appendix A

Recruitment Flier



Do you enjoy making art?

SEEKING VOLUNTEERS FOR MY STUDY
ON ATTACHMENT AND ART MAKING.
NO PREVIOUS ART SKILL NEEDED!

Requirements:

1. One of your parents experienced mental health issues when you were a child
2. You must be 18 or older

Study sessions will be in person individually
or in group settings for about 30 minutes

Please email: krodriguez@albertus.edu

Appendix B

Informed Consent Form

This study is being conducted as part of the requirements for the Master of Arts in Art therapy and Counseling degree at Albertus Magnus College. This study aims to explore attachment style via a projective drawing task for persons who grew up with a parent experiencing mental health issues. During this study, you will be asked to participate in art making and fil1 out a questionnaire based on how you currently experience close relationships with others. Please note that your art-making abilities are not a factor in this study. You will also be asked to fill out a demographic questionnaire to provide background information to the researcher. All information collected will be confidential and the study is expected to take anywhere from 20-30 minutes. To maintain confidentiality, the artwork created during this study and your questionnaire will be numbered, your name will not be connected to the work in any way. At the end of the study, you will be told the purpose of the study in greater detail.

Potential risks involved with participation in this study may include frustration with art making or possible negative feelings in answering some questions on the questionnaire. While there are no specific benefits to you for participating other than possibly enjoying art making, benefits include assisting a graduate student in completing her thesis requirement and contributing to research in the field of art therapy. You may also enjoy the art activities. This study has been approved by the Albertus Magnus College Institutional Review Board (IRB).

If you have any known allergies to art materials, please inform the researcher. If you have any questions or concerns about this research, you may contact the following individuals:

Investigator	Art Therapy Advisor	Psychology Advisor
Kayla Rodriguez	Rebecca Arnold, PhD, ATR-BC	Hilda Speicher, Ph. D.
krodriguez@albertus.edu	rarnold@albertus.edu	hspeicher@albertus.edu

Or:
Chair of IRB
Joshua Abreu, Ph.D.
jabreu1@albertus.edu

By signing this form, I acknowledge that I am 18 years of age or older, understand the study described above, had any questions addressed, and agree to participate.

Signature Date

_____I have received a copy of this form to keep for myself.

Appendix C

Art Release Form

The artwork that you create during this study will remain confidential. Your name will not be attached to your artwork. Photographs of the artwork will *only* be taken with your consent for the purposes listed below. Photographs taken of the artwork *will not* contain any identifying information.

I agree to have my artwork photographed without identifying information for the following purpose(s): (Please check all that apply)

○ Educational and training purposes

○ Presentation at a professional conference

○ Publication in a professional journal
○ None of the above

I hereby give consent as noted above for the photographing of my artwork.

Signature Date

Please note that if later you choose to withdraw permission for your artwork to be shown as noted above, it may be difficult or impossible to contain images already disseminated in public settings.

(_) I have received a copy of this form to keep for myself.

(_) I would like to receive my original artwork after completion of study.

Appendix D

Demographic Questionnaire

1. What is your age? _______
2. Which options best represent your racial/ethnic identity? (check all that apply)

   _______ Black or African American

   _______ White (non-Hispanic)

   _______ Hispanic/Latinx

   _______ Native American or American Indian

   _______ Asian/Pacific Islander

   ________ Other
3. Which option best represents your gender identity?

   _______ Cisgender Man

   _______ Cisgender Woman

   _______ Non-Binary

   _______ Transgender Man

   _______ Transgender Woman

   _______ Not listed

   _______ Prefer not to say
4. As a child, did you have any parents or guardians with a mental health issue?

   _______ Mother or mother like figure

   _______ Father or father like figure

   _______Not listed, if so specify (_____________)

Appendix E

Debriefing Form

The purpose of this study is to determine if the Birds Nest Drawing (BND), an art assessment tool, is a valid measure of attachment in adults who may experience intergenerational trauma. Research has suggested that children of persons experiencing trauma (which often accompanies mental health concerns) may develop intergenerational trauma (Fenerci & DePrince, 2017) because the caregiver becomes preoccupied with the pervasiveness of their own trauma (Jensen et al., 2020).

The hypothesis is that adults who have intergenerational trauma will reveal a form of an insecure attachment style in their drawing images as scored by the BND protocol.

If you would like to know the results of this study, please provide your email address to the researcher. Please note that individual results cannot be shared. Results can only be provided in aggregate.

If you would like to speak to a professional about any feelings that might have come up after the study, please reach out to the following source:

If you are a student at Albertus: (203) 773-8149, counseling@albertus.edu

For the general public: call 211 for information on mental health services

For more information on the construct of attachment and intergenerational trauma read:

- Bowlby J. (1969). *Attachment and loss.* New York: Basic Books.
- Jensen, S. K. G., Sezibera, V., Murray, S. M., Brennan, R. T., & Betancourt, T. S. (2021). Intergenerational impacts of trauma and hardship through parenting. *Journal of Child Psychology and Psychiatry*, *62*(8), 989–999. https://doi.org/10.1111/jcpp.13359

Thank you for your voluntary participation in this study!

Appendix F

Debriefing Form

The purpose of this study is to determine if the Birds Nest Drawing (BND), an art assessment tool, is a valid measure of attachment in adults who may experience intergenerational trauma. Research has suggested that children of persons experiencing trauma (which often accompanies mental health concerns) may develop intergenerational trauma (Fenerci & DePrince, 2017) because the caregiver becomes preoccupied with the pervasiveness of their own trauma (Jensen et al., 2020).

The hypothesis is that adults who have intergenerational trauma will reveal a form of an insecure attachment style in their drawing images as scored by the BND protocol.

If you would like to know the results of this study, please provide your email address to the researcher. Please note that individual results cannot be shared. Results can only be provided in aggregate.

If you would like to speak to a professional about any feelings that might have come up after the study, please reach out to the following source:

Honor Wellness Center: Phyllis DiGioia (860) 919-9762

For more information on the construct of attachment and intergenerational trauma read:

- Bowlby J. (1969). *Attachment and loss.* New York: Basic Books.
- Jensen, S. K. G., Sezibera, V., Murray, S. M., Brennan, R. T., & Betancourt, T. S. (2021). Intergenerational impacts of trauma and hardship through parenting. *Journal of Child Psychology and Psychiatry*, *62*(8), 989–999. https://doi.org/10.1111/jcpp.13359

Thank you for your voluntary participation in this study!